3

The opposing surfaces 13 and 14 of the screw threads are both inclined at an angle α to the plane parallel perpendicular to the axis of the neck 4 of the container. The angle of inclination is preferably at lease 60°–75° in the case of a container and cap made of thermoplastic materials, the most preferred angle is 65°. In the case of a container and cap made of metals, the angle of inclination is preferably about 70° – 80°

When the cap is tightened onto the container to a predetermined rotational orientation defined by the aligned position shown in FIG. 1, it passes through the loose position shown in FIG. 2 to the tight position shown in FIG. 3. Here it can be seen that the aligned position has been achieved after an initial seal has been made between the end wall 8 of the cap and the open end 6 of the container and further tightening of the cap to the aligned position has caused the screw threads 7 and 10 to slip laterally on one another causing the cylindrical side wall to deform by bulging outwardly. The degree of slipping and consequent bulging will vary according to manufacturing tolerances. It will be appreciated that the screw thread surfaces must have sufficient lateral extend that they can slip laterally on one another without becoming disengaged and jumping over one another.

In a modified embodiment shown in the tightened condition in FIG. 4, only the surface 13 of the screw thread on the container neck is inclined. In this embodiment it is the neck of the container which is adapted to bulge inwardly when the opposing surfaces of the threads 7 and 10 slip laterally on one another. The outer skirt is omitted in this embodiment since the container is cylindrical rather than generally rectangular.

The foregoing detailed description is given primarily for clearness of understanding and no unnecessary limitations are to be understood therefrom for modifications will become obvious to those skilled in the art upon reading this disclosure and may be made without departing from the spirit of the invention of the scope of the appended claims.

What is claimed is:

- 1. A container and closure cap, comprising:
- a container having a neck, said neck including an open end and an external screw thread;
- a closure cap having a planar end wall and a downwardly extending cylindrical side wall with an internal screw thread extending inwardly and downwardly therefrom, 45 said internal screw thread having at least one upper surface opposing at least one lower surface of said external screw thread; and,
- at least one of said upper surface of said internal screw thread and said opposing lower surface of said external 50 screw tread being inclined at an angle, said angle being at least 60° relative to a plane perpendicular to the longitudinal of said neck of said container.
- 2. The container and closure cap of claim 1, said upper surface of said internal screw thread and said lower surface of external screw thread having sufficient lateral extent such that said upper surface of said internal screw thread and said lower surface of said external screw thread slip laterally on each other to enable said side wall of said cap to deform when said cap is tightened onto said container to a particular opredetermined rotational orientation relative thereto which is rotationally beyond a point at which said planar end wall of said cap forms a seal with said open end of said neck.
- 3. The container and closure cap of claim 1, wherein said angle is about 60° to 75° .
- 4. The container and closure cap of claim 1, wherein said upper surface of said internal screw thread and said lower

4

surface of external screw thread are parallel to one another and said angle is about 65°.

- 5. The container and closure cap of claim 1, said cap including a skirt surrounding said cylindrical side wall.
- 6. The container and closure cap of claim 1, said cylindrical side wall of said cap bulging outwardly when said upper surface of said internal screw thread and said lower surface of external screw thread slip laterally on each other.
- 7. The container and closure cap of claim 1, said neck bulging inwardly when said upper surface of said internal screw thread and said lower surface of external screw thread slip laterally on each other.
- 8. The container and closure cap of claim 1, said upper surface of said internal screw thread and said lower surface of said external screw thread having sufficient lateral extent such that said upper surface of said internal screw thread and said lower surface of external screw thread slip laterally on each other to enable said neck of said container to deform when said cap is tightened onto said container to a particular predetermined rotational orientation relative thereto which is rotationally beyond a point at which said planar end wall of said cap forms a seal with said open end of said neck.
 - 9. A container and closure cap, comprising:
 - a container having a neck, said neck having an open end and an external screw thread, said external screw thread having a lateral upper surface and an upwardly angled lower surface:
 - a closure cap attached to said container, said closure cap having a planar end wall with a cylindrical side wall downwardly extending therefrom, said cylindrical side wall having an inwardly and downwardly extending internal screw thread with an angled upper surface and a lateral lower surface; and,
 - at least one of said lower surface of said external screw thread and said upper surface of said internal screw thread being opposed and inclined at an angle, said angle being at least 60° relative to a plane perpendicular to the longitudinal axis of said neck of said container.
- 10. The container and closure cap of claim 9, said lower surface of said external screw thread being inclined at an angle of between about 60° and 75° relative to said plane.
- 11. The container and closure of claim 9, said upper surface of said internal screw thread being inclined at an angle of between about 60° and 75° relative to said plane.
- 12. The container and closure of claim 9, said cylindrical side wall being deformed outwardly when said container and said closure cap are in a predetermined rotational orientation.
- 13. The container and closure cap of claim 9, said neck being inwardly bulged when said upper surface of said internal screw thread and said lower surface of said external screw thread are laterally slipped over on each other.
- 14. The container and closure cap of claim 9, said closure cap including a skirt having a rectangular cross section enclosing said cylindrical side wall.
- 15. The container and closure cap of claim 9, said container being made of a metal and said closure cap also being made of a metal, said angle being between about 70° and 80° .
 - 16. A container and closure cap, comprising:
 - a container having a neck, said neck including an open end and an external screw thread with an upwardly angled external screw thread surface;
 - a cap attached to said container, said cap including a cylindrical side wall having an internal screw thread